REMARKS

Applicants appreciate the Examiner's thorough examination of the present application as evidenced by the Office Action of March 10, 2006 (hereinafter "Office Action"). Applicants especially appreciate the indication that dependent Claims 6 and 22 recite patentable subject matter. In response, Applicants have amended independent Claim 1 by incorporating recitations from dependent Claims 2 and 3, amended independent Claim 17 by incorporating recitations from dependent Claims 18 and 19, amended independent Claim 25 by incorporating recitations from dependent Claims 26 and 27, and amended independent Claim 32 by incorporating recitations from dependent Claims 33 and 34 to clarify that the sound metric is a loudness profile and is generated by performing a Fourier transform on the noise signal. Dependent Claims 2, 3, 18, 19, 26, 27, 33, and 34 have been canceled without prejudice or disclaimer. Various dependent claims have been amended to correct their dependencies in light of the claim cancellations. Independent Claims 11, 30, and 37 have been amended to clarify that each of the alert profiles is generated to have a spectral composition based on a noise signal sound metric associated with an ambient noise environment. Independent Claim 14 has been amended to clarify that at least one of the plurality of alert profiles has a different spectral composition than other ones of the plurality of alert profiles. Independent Claims 31 and 38 have been amended to clarify that a previously generated alert profile is selected responsive to receiving the noise signal and to also clarify that at least one of the plurality of alert profiles has a different spectral composition than other ones of the plurality of alert profiles so as to be consistent with independent Claim 14.

Applicants respectfully submit that the cited references fail to disclose or suggest the recitations of independent Claims 1 (as amended), 11 (as amended), 14 (as amended), 17 (as amended), 25 (as amended), 30 (as amended), 31 (as amended), 32 (as amended), 37 (as amended), and 38 (as amended). Therefore, Applicants respectfully submit that all pending claims are in condition for allowance. Favorable reconsideration of all pending claims is respectfully requested for at least the reasons discussed hereafter.

Independent Claims 1, 17, 25, and 32 are Patentable

Independent Claim 1, as amended, recites, in part:

>receiving a noise signal;
>generating a sound metric for the noise signal by performing a
>Fourier transform on the noise signal to obtain a frequency domain
>representation of the noise signal, wherein the sound metric is a loudness
>profile; and
>generating an alert signal having a spectral composition based on
>the sound metric.

Independent Claims 17, 25, and 32 include similar recitations.

The rejection of Claim 1 will be addressed based on the rejection of previously pending dependent Claim 3. Previously dependent Claims 3, 19, 27, and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U. S. Patent No. 6,134,455 to Corkum (hereinafter "Corkum") in view of U. S. Patent Application Publication 2005/0278165 to Boillot et al. (hereinafter "Boillot"). (Office Action, page 6). The Office Action acknowledges that Corkum does not disclose or suggest performing a Fourier transform on the noise signal to obtain a frequency domain representation of the noise signal, but alleges that Boillot at paragraph 91 provides the missing teaching. (Office Action, page 6). Applicants respectfully disagree, as paragraph 91 of Boillot describes generating a frequency response curve for an audio speaker, not a noise signal. Applicants respectfully submit that Boillot appears to contain no disclosure directed to performing a Fourier transform on a noise signal as Boillot's disclosure is directed to obtaining an audio profile for a listener's hearing sensitivity by providing the listener with a hearing test (Boillot, paragraphs 93 through 98) rather than profiling the ambient noise environment.

Furthermore, neither Corkum nor Boillot disclose or suggest generating an alert signal that has a spectral composition based on a sound metric for a noise signal. Corkum's disclosure is limited to adjusting a loudness level of an alert or ringing signal based on the ambient noise level (Corkum, col. 5, line 63 - col. 6, line 15 and col. 7, lines 54 - 65) and does not suggest basing the spectral composition of the ringing signal on the noise signal sound metric. Boillot, as discussed above, is not directed to analyzing a noise

signal, but instead is directed to obtaining an audio profile for a listener's hearing sensitivity.

For at least the foregoing reasons, Applicants respectfully submit that independent Claims 1, 17, 25, and 32 are patentable over Corkum and Boillot and that dependent Claims 4 – 10, 20 – 24, 28, 29, 35, and 36 are patentable at least as they depend from an allowable claim.

Independent Claims 11, 30, and 37 are Patentable

Independent Claims 11, 30, and 37 stand rejected under 35 U.S.C. §102(b) as being anticipated by Corkum. (Office Action, page 2). Applicants have amended independent Claims 11, 30, and 37 to clarify that each of the alert profiles is generated based on a noise signal sound metric associated with an ambient noise environment. For example, independent Claim 11, as amended, recites, in part:

> providing a plurality of alert profiles, each of the alert profiles being generated to have a spectral composition based on a noise signal sound metric associated with an ambient noise environment;
> receiving a user selection of one of the plurality of alert profiles; and
> generating an alert signal that is based on the selected one of the plurality of alert profiles.

Support for the amendment to independent Claim 11 can be found in the Specification, for example, at page 8, line 21 through page 9, line 2. Independent Claims 30 and 37 include similar recitations.

In rejecting independent Claims 11, 30, and 37, the Office Action cites col. 6, lines 48 – 55 of Corkum (Office Action, page 3), which describes the ability of a user to override the automatic ringervolume function by selecting a default or desired annunciation level. (Corkum, col. 6, lines 55 – 60). In sharp contrast to the recitations of independent Claims 11, 30, and 37 as amended, however, Corkum does not appear to disclose or suggest that the particular annunciation levels that can be selected by a user are generated based on a noise signal sound metric that is associated with an ambient noise environment.

Furthermore, as discussed above with respect to independent Claims 1, 17, 25, and 32, Corkum does not disclose or suggest generating an alert signal that has a spectral composition based on a sound metric for a noise signal.

For at least the foregoing reasons, Applicants respectfully submit that independent Claims 11, 30, and 37 are patentable over Corkum and that dependent Claims 12 and 13 are patentable at least as they depend from an allowable claim.

Independent Claims 14, 31, and 38 are Patentable

Independent Claims 14, 31, and 38 stand rejected under 35 U.S.C. §102(b) as being anticipated by Corkum. (Office Action, page 2). Independent Claim 14 is directed to a method of operating an electronic device and recites, in part:

> providing a plurality of alert profiles, at least one of the plurality of alert profiles having a different spectral composition than other ones of the plurality of alert profiles; then
> receiving a noise signal;
> selecting one of the plurality of alert profiles responsive to receiving the noise signal; and
> generating an alert signal that is based on the selected one of the plurality of alert profiles.

Independent Claim 14 has been amended to clarify that at least one of the plurality of alert profiles has a different spectral composition than other ones of the plurality of alert profiles. Support for this amendment can be found in the Specification, for example, on page 10, lines 4 - 25. Independent Claims 31 and 38 have been amended to clarify that a previously generated alert profile is selected responsive to receiving the noise signal and to also clarify that at least one of the plurality of alert profiles has a different spectral composition than other ones of the plurality of alert profiles so as to be consistent with independent Claim 14. Thus, according to independent Claim 14, a plurality of alert profiles is generated before the noise signal is received. One of the alert profiles is selected in response to receiving the noise signal.

In sharp contrast, Corkum describes determining the loudness of the ringing tone in response to receiving a paging signal and the ambient noise level at that time. (Corkum,

col. 6, line 66 – col. 7, line 33). Corkum emphasizes that "[t]he loudness level of the ringing tone is thereby dynamically determined just prior to termination of a call at the mobile station. The loudness level of a ringing tone generated by the mobile station is better able to be selected to be of a loudness level appropriate for the conditions in which the mobile station is positioned." (Corkum, col. 7, lines 34 – 40). Applicants submit, therefore, that Corkum does not appear to suggest pre-storing alert profiles that can be selected upon receiving a noise signal, but instead teaches generating a loudness level for the ringing tone each time a paging signal is received based on the ambient noise level at that time.

Furthermore, as discussed above with respect to independent Claims 1, 17, 25, and 32, Corkum does not disclose or suggest generating alert signals that have different spectral compositions, but instead is limited to adjusting a loudness level of an alert or ringing signal based on the ambient noise level.

For at least the foregoing reasons, Applicants respectfully submit that independent Claims 14, 31, and 38 are patentable over Corkum and that dependent Claims 15 and 16 are patentable at least as they depend from an allowable claim.

Various Dependent Claims are Separately Patentable

With regard to dependent Claim 9, this claim includes all of the recitations from independent Claim 1 and is, therefore, patentable over Corkum and Boillot for at least the reasons stated above. The Office Action does not provide any detail on the basis for rejecting dependent Claim 9. Applicants submit that dependent Claim 9 is patentable over Corkum and/or Boillot for reasons similar to those discussed above with respect to independent Claims 14, 31, and 38. That is, the cited references do not disclose or suggest receiving the noise signal and generating the sound metric for the noise signal before receiving an incoming communication. Applicants submit that dependent Claim 9 is separately patentable for at least these additional reasons.
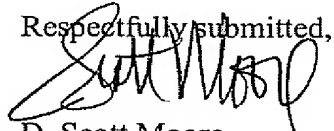
With regard to dependent Claims 6 and 22, these Applicants submit that these claims are separately patentable as indicated in the Office Action.

CONCLUSION

In light of the above amendments and remarks, Applicants respectfully submit that the above-entitled application is now in condition for allowance. Favorable reconsideration of this application, as amended, is respectfully requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (919) 854-1400.
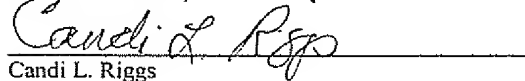
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CERTIFICATION OF ELECTRONIC TRANSMISSION

I hereby certify that this correspondence is being transmitted electronically to the U.S. Patent and Trademark Office on June 12, 2006.

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